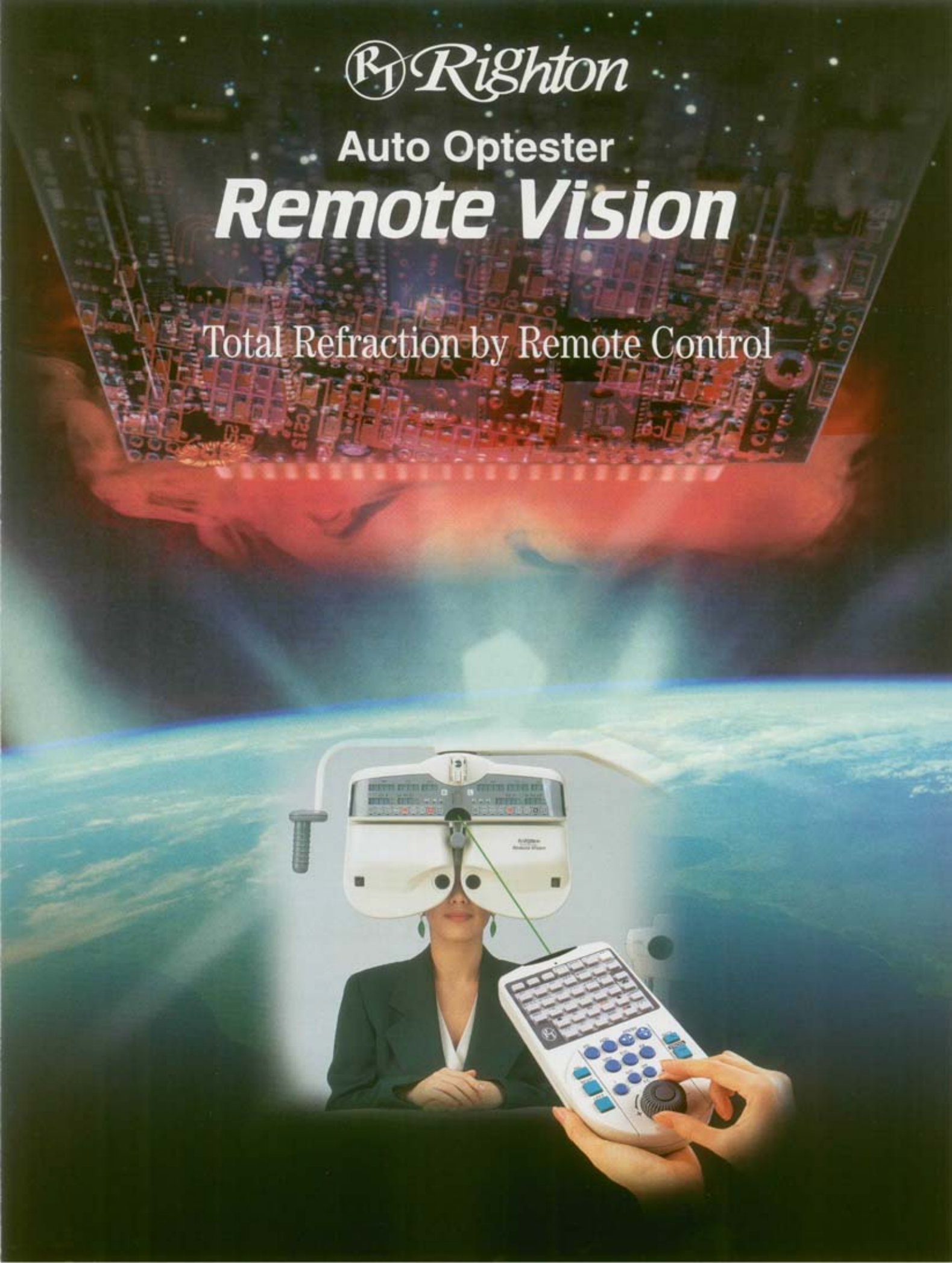
Righton

Auto Optester
Remote Vision

Total Refraction by Remote Control



All Operations Are Remote Controllable

With its wider coverage area the new remote control system gives operators greater flexibility in the examination room. Now you can easily check patient position and point to the chart during examination.

Wireless Direct Data Transfer

Simply aim the Retinomax toward the Remote Vision, press the Print Key, and data is transferred wirelessly to the main unit. The Remote Vision printer can also be used independently with the Retinomax. (Note: only refraction data is transferred with the K-plus.)

Three Programs for Efficient Operation

The Remote Vision system contains three preset programs which can also be customized for individual use.

a) Single Eye Examination in Easy Steps with Preset Programs and the Retinomax

Program No.1 is preset for general monocular examination. Press the NEXT key to move on to the next step; the current step number appears on the central window for confirmation.

Program No.3 contains a quicker, simpler preset. By using Program No.3 after taking a Retinomax reading, instruments perform just like an Objective/Subjective Auto Refractometer.

b) Programmed Binocular Testing

Program No.2 is preset for binocular tests utilizing the charts of Chart Projector NP-3S. Charts are synchronized in the test.

All three programs can be modified and renewed and each contains up to 30 steps programmed along with chart tests.

Loaded on the chair & stand unit

Easy-to-Use Remote Controller with Jog Dial

Data can be shifted with a jog dial for faster examinations– only 7 seconds to shift from OD to 10D. In combination with the NP-3S Chart Projector, the remote controller lets you change charts by simply pressing the CHART key. To switch between Chart and Optester tests, also press the CHART Key.

All NP-3S Charts Available Through Remote Control

Exclusive single remote controller (all areas)
Multiple charts combined (mostly U.S.A.)
Europe II chart (mostly Europe)
Number charts combined (all areas)
Snellen and number charts combined (all areas), etc.

Remote Vision keys NP-3S keys

Four-Unit Installation and 8 Data Entries Memorized

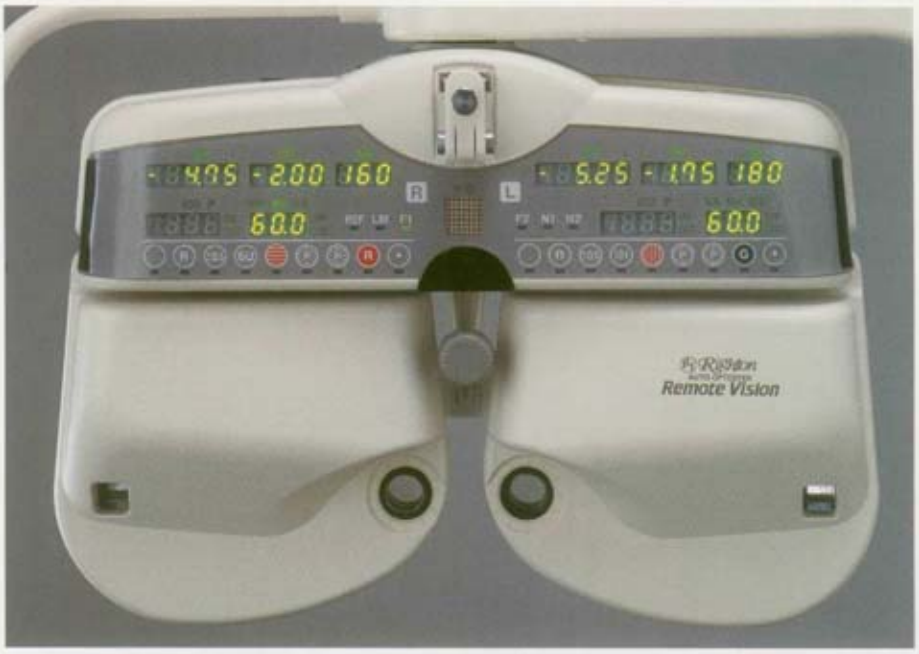
Up to four* Remote Vision units can be installed without signal interference from the remote controller. A single Remote Vision can store eight data entries selected from an Auto Refractometer or Retinomax.

*Eight units when four NP-3S units are wired.

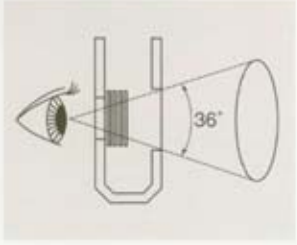
Optional Data Receiver

In situations where the Remote Vision is located in a closed room, a data receiver is available as an option to extend the wire connection to wherever the Retinomax is being used.

Large LED Display and Super-Thin Viewing Window

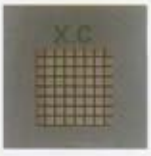


All lens data are clearly visible on the large LED display for instant recognition (approx. 2.75 times greater than previous models; 11mm x 8mm). The extra thin viewing windows gives a 36 degree field of view, allowing patients to see charts clearly without accommodation.



Easy-to-See Auxiliary Lens Indications

Auxiliary lenses are indicated in the center window by an LED. The LED on the lens mark also lights up.



or R	Retinoscopy
or P1 P P2 P	Polarized filter
or 6u 6U 10I 10I	Prism
or MH MV	Maddox
or Red R Green G	Filter
	Pinhole
	Cross cylinder
	Manual X, C
	Auto X, C
	Extra X, C
	Right/left PD
Input from Retinomax / Output to PC	Data In/Out
Input failed / Output failed	Data failed

Six Kinds of Data Memory:

Far 1, Far 2, Near 1, Near 2, Auto ref.
or Retinomax, Auto lensmeter
It is possible to compare two different data.

Power box with printer

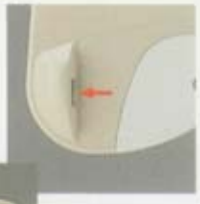
Standard Near Point Chart

Quick, Manual Cross Cylinder and Auto Cross Cylinder

Conventional cross cylinder tests can be accomplished faster than ever before. During auto cross cylinder tests, the center LED window indicates in which direction the dial should be turned.

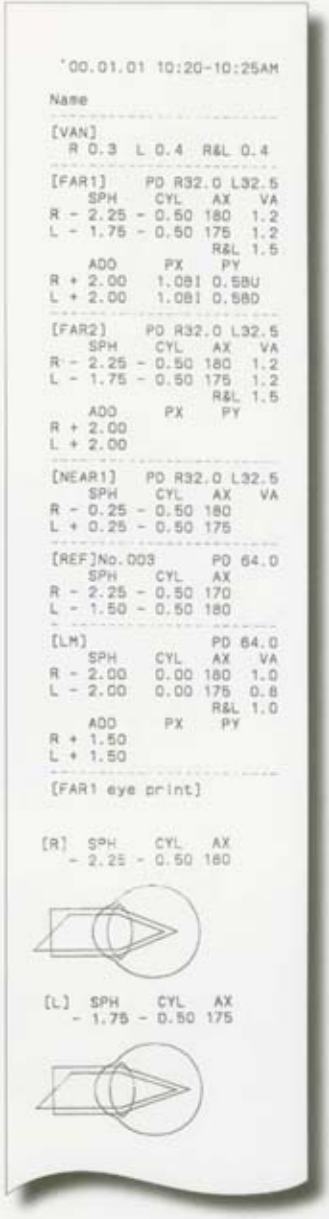
Eye Projection Lights

Eye projection lights on both sides help the operator check patient's eyes for VD and PD adjustment.



Detachable Sanitary Cheek Plate

Print Sample



'00.01.01 10:20-10:25AM

Name

[VAN]
R 0.3 L 0.4 R&L 0.4

[FAR1] PD R32.0 L32.5
SPH CYL AX VA
R - 2.25 - 0.50 180 1.2
L - 1.75 - 0.50 175 1.2
R&L 1.5
ADD PX PY
R + 2.00 1.08I 0.58U
L + 2.00 1.08I 0.58D

[FAR2] PD R32.0 L32.5
SPH CYL AX VA
R - 2.25 - 0.50 180 1.2
L - 1.75 - 0.50 175 1.2
R&L 1.5
ADD PX PY
R + 2.00
L + 2.00

[NEAR1] PD R32.0 L32.5
SPH CYL AX VA
R - 0.25 - 0.50 180
L + 0.25 - 0.50 175

[REF]No.003 PD 64.0
SPH CYL AX
R - 2.25 - 0.50 170
L - 1.50 - 0.50 180

[LM] PD 64.0
SPH CYL AX VA
R - 2.00 0.00 180 1.0
L - 2.00 0.00 175 0.8
R&L 1.0
ADD PX PY
R + 1.50
L + 1.50

[FAR1 eye print]

[R] SPH CYL AX
- 2.25 - 0.50 180

[L] SPH CYL AX
- 1.75 - 0.50 175

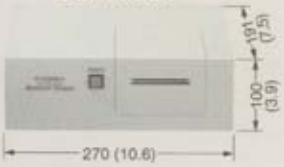
Dimensions

Standard set

Main body

Remote control

Power box



Three-way hanging adapter
- Regular stand arm
- German stand arm
- OS type arm

Unit : mm (in.)

Remote Control Panels Selectable by Chart Projectors (Single/Multiple/Europe II/Snellen & Number/Number etc.)

Specifications

Measuring Head		
Measurement range Spherical power	−29.00D ≤ S + C/2 ≤+ (auxiliary lens) ≤ +26.75D in 0.25D steps (0.125/0.25/1D selectable) With prism, auto cross cylinder: −19.00D ≤ S + C/2 ≤ + (auxiliary lens) ≤ +16.75D	
Cylindrical power	−7D to +7D in 0.25D/1D steps (selectable)	
Cylindrical axes	0° to 180° in 5° steps (1/5/45° selectable)	
Prism	0Δ to 20Δ in 0.5Δ steps (0.25/0.5/1Δ selectable)	
Cross cylinder	Auto cross cylinder: ±0.25D Cross cylinder: ±0.25D/±0.50D switchable	
Auxiliary lenses	For left eye	For right eye
	Open aperture	
	Occluder	
	+1.50 or +2.00 for Retinoscope	
	±0.50 cross cylinder lens	
	Vertical Maddox	Horizontal Maddox
	Polarizing filter	
	135° transmission from examiner side	45° transmission from examiner side
	45° transmission	135° transmission
	10Δ base-in	6Δ base-up
	Green filter	Red filter
	PD cross hairline	
	Pinhole diameter 1.2mm	
Effective field of view	36°	

Vertex distance	12mm or 13.75mm
P.D. adjustment	50mm to 80mm in 0.5mm steps (0.1/0.5/1mm selectable)
Convergence	Turning toward 400mm ahead
Dimensions and weight	431 (W) x 367 (H) x 147 (D) mm (at PD 64mm), 8.0kg (17.6 lbs.) (Regular) / 7.75kg (German)
Remote Controller	
Dimensions and weight	120 (W) x 57 (H) x 223 (D) mm, approx. 470g (16.6 oz.)
Signal transmission	2 LEDs
Power source	1.5V AA battery x 3 pcs
Data memory	3 examination programs, Auto refractometer, Auto lensmeter, Far 1, Far 2, Near 1, Near 2
Visual acuity input	20/20, 1.0, or 6/6 corresponding to chart
Prism indication	Changeable (base display/$r\theta$ display)
Battery service life	6 months (typical), 4 months with alkaline batteries (based on 1,500 key strokes per day)
Power Supply	
Dimensions and weight	270 (W) x 100 (H) x 191 (D) mm, 6.4kg (14.1 lbs.) (with printer)/ 5.7kg (12.6 lbs.) (w/o printer)
Power consumption	1.5A (100/120V); 0.7A (230V)
Fuse capacity	T3. 15/250V (100/120V) T1. 6/250V (230V)
Interface	RS-232C interface x 2
Printer	Thermal line dot printer
Data Receiver (Option)	
Dimensions and weight	36 (W) x 66 (D) x 29 (H) mm, 150g (5.3 oz.) (incl. cord)

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. January 2004.

The program power box is a strategic product subject to Japanese/International export control regime. It should not be exported without authorization from the appropriate governmental authorities.

ISO 9001

ISO 9001 Certified
RIGHT MFG. CO., LTD.

RIGHT MFG. CO., LTD.

Ophthalmic Sales
1-47-3, Maenocho, Itabashi-ku, Tokyo 174-8633, Japan
Tel: +81-3-3960-2275 **Fax**: +81-3-3960-2285
e-mail: eigyousitsu@rightmfg.co.jp

TOHOKU RIGHT MFG. CO., LTD.

Ophthalmic Service
45-1, Aza-yashikimae, Nakamura Osato-cho, Kurokawa-gun, Miyagi 981-3521, Japan
Tel: +81-22-359-3113 **Fax**: +81-22-359-3413

Printed in Japan (040105)TI